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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TABOR, AMARE F

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/791,414	Applicant(s) XIANG ET AL.	
	Examiner AMARE TABOR	Art Unit 2434	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-12, 14, 17 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-12, 14, 17 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This correspondence is in response to **REMARKS** filed on 05/11/2009.
2. Claims 12 and 25 are amended.
3. **Claims 10-12, 14, 17 and 20-25** are pending.

Response to Arguments

4. Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

/ **Examiner's Note:** From applicant's argument, examiner has realized that he has incorrectly equated the 1st, 2nd and 3^d elements of Claims 10 and 22 with elements of the primary reference, **Bahl**. Therefore, examiner has corrected his mistake, but maintains that the claims are obvious over the prior arts combination. For example, as applicant admitted, **Bahl** discloses a secured connection (SA) between the mobile and correspondent host; and then 'migrates' (or duplicates) the connection (or secured SA) to a 'new mobile host address'. With broadest but reasonable claim interpretation, examiner argues that the 'new mobile host address' is acting as the claimed 'third network element.' In addition, examiner respectfully disagrees with applicant's argument the combined references failing to disclose the claimed 'replacing the second element in response to detecting failure', because **Colie** cures the deficiency of **Bahl** by expressly disclosing transferring network services to a backup device in response to failure of primary network device. Therefore, the rejection is maintained.*

*The rejection of Claim 12 is repeated because examiner maintains that, with **broadest** but **reasonable** claim interpretation, the combined references disclose the claimed invention. For example, **Bahl** discloses Access Points and nodes (mobile or correspondent), such that connection (or SA) is not dependent on destination address.*

Obviously, **Colie** discloses information (commands) sharing (see at least FIGS.3 and 4. In addition, it is not disputed that **Colie** discloses plurality of network servers) */

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-12, 14, 17 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl et al. (US 7,020,464 B2 - "Bahl") in view of Colie et al. (US 6,108,300 - "Colie")

As per Claim 10, Bahl teaches,

A method for maintaining secure network connections, the method comprising: duplicating [see 'migrating' in abstract; and for example, col.2, lines 39-45], at the third network element [see FIG.6; 'new mobile address' in abstract; and for example, col.6, lines 35-54. See also 'computer-readable medium' in Claim 1, which 'handles address change of a mobile host communicating with a correspondent'], a security association [see for example **Security Associations 86 and 84** in FIG.2; and see also **IPSEC/ISKAMP SAs** in FIG.3] associated with a secure network connection between a first network element [see for example **Mobile Host 70 and 120** in FIGS.2 and 3, respectively] and a second network element [see for example **Correspondent Host 72 and 122** in FIGS.2 and 3, respectively], wherein a lookup of the security association associated with the secure network connection [see FIG.2] is not dependent on any destination address [see for example, col.11, lines 45-47: "*All traffic over the "migrated" connection now uses the new IP address of the mobile host and is secured using the same security association context as before.*" In other words, **Bahl** expressly discloses not changing the SA lookup when a mobile host changes from old to new address. Additionally, **Bahl** discloses 'secured control channel 96'; and **SA end points** that are not dependent on any destination address; see for

example, FIGS.2, 4A and 4B], wherein the secure network connection between the first network element and the third network element is based on the duplicated security association [see for example, col.2, lines 39-45; col.6, lines 33-34 and col.6, lines 44-47].

As shown above, **Bahl** mitigates (or duplicates) SA at the new mobile address [see abstract and Claim 1]; however, **Bahl** is silent about the third network element as being a server, and replacing the second network element with the third network element in the secure network connection with the first network element in response to detecting failure of the second network element. However, in the same filed of endeavor, **Colie** teaches a third network element [see **Backup Network Device 120** in FIG.1], and replacing the second network element with the third network element in the secure network connection with the first network element in response to detecting failure of the second network element [see abstract and FIG.1 – where **Colie** discloses transferring network services to a backup network device when a primary network device fails]. Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of applicant's invention was made, to modify the system of **Bahl** by incorporating the teaching of **Colie** in order to prohibit network failure by replacing failed device a backup network device [see at least abstract of **Colie**].

As per Claim 12, Bahl-Colie combination teaches,

A method for maintaining secure network connections, the method comprising: configuring a plurality of security gateways [**Access Point 156** in FIG.3 – **Bahl** discloses 156 as access points; see for example, col.8, lines 51-61. See also at least FIGS.3 and 4 of **Coilie**] such that a lookup of security associations is not dependent on any destination address [see for example, col.2, lines 39-45; col.6, lines 33-34 and col.6, lines 44-47 of **Bahl**]; and sharing a security association [see **Security Associations 86 and 84** in FIG.2; and see also **IPSEC/ISKAMP SAs** in FIG.3 of **Bahl**] among the plurality of security gateways [see FIGS.1 and 2; and for example, col.5, lines 16-19 – where **Bahl** discloses one or more correspondent hosts. See also **Server 112a and 112b** FIG.1 of **Coilie**].

As per Claim 22, Bahl-Colie combination teaches,

A first security server comprising: a transceiver [see for example, col.8, lines 51-67 - where **Bahl** disclose DHCP server] to receive information relating to at least one security association [see **Security Associations 86 and 84** in FIG.2; and see also **IPSEC/ISKAMP SAs** in FIG.3 of **Bahl**] of a secure network connection [see secured control channel **96** in FIG.2 of **Bahl**] between a mobile client [**MH** of **Bahl**] and a second security server [access points of **Bahl**]; and a processor module to: monitor operation of the second, security server; in response to detecting failure of the second security server [see **Primary Network Device 110** in FIG.1 of **Colie**], send a message to the mobile client [see **Client** in FIG.1 of **Colie**] that the first security server [see **Backup Network Device 120** in FIG.1 of **Colie**] is taking over the secure network connection [see abstract of **Colie**]; and communicate with the mobile client using the at least one security association over the secure network connection between the first security server and the mobile client [see abstract and FIGS.2-5 – where **Bahl** discloses communicating between the MH and CH/or access points/ is based on security associations].

As per Claim 11, Bahl-Colie combination teaches,

sending at least one secure message from the third network element to the first network element to notify the first network element that the secure network connection will be taken over by the third network element [see abstract and FIG.1 of **Colie**].

As per Claim 14, Bahl-Colie combination teaches,

wherein a lookup of security associations is not dependent on any destination address [see FIGS.4A and 4B – where **Bahl** discloses **SA end points** that are not dependent on any destination address].

As per Claim 17, Bahl-Colie combination teaches,

wherein communications between the mobile client and the first security server are based on a security architecture for the internet protocol (IPsec) [see **IPSEC SAs** in FIG.3; and for example, col.col.8, lines 26-50].

Claim 25 is rejected for the same reasons applied to the rejection of Claim 17.

As per Claim 20, Bahl-Colie combination teaches,

during life of the secure network connection between the first and second network elements, the third network element receiving information relating to the security association of the secure network connection from the second network element [see FIGS.2-4B of **Bahl**].

As per Claim 21, Bahl-Colie combination teaches,

wherein the first network element is a mobile client [see **MH** in FIGS.2 and 3 of **Bahl**; and **Client** in FIG.1 of **Colie**], and the second and third network elements are security servers [**Bahl** discloses access points and DHCP server. See also FIG.1 of **Colie** where network elements are disclosed as servers].

Claim 23 is rejected for the same reasons applied to the rejection of Claim 21.

As per Claim 24, Bahl-Colie combination teaches,

wherein information relating to the at least one security association is duplicated at the first and second security servers [see for example, col.2, lines 39-45; col.6, lines 33-34 and col.6, lines 44-47 of **Bahl**].

CONTACT INFORMATION

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **AMARE TABOR** whose telephone number is (571)270-3155. The examiner can normally be reached on Mon-Fri 8:00a.m. to 5:00p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kambiz Zand** can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2434

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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(AU 2434)

/Farid Homayounmehr/